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# PROCEEDINGS

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# SOME NEW MAMMALS FROM INDIAN TERRITORY AND MISSOURI.

### BY OUTRAM BANGS.

In the summer of 1896 Mr. Thaddeus Surber undertook a collecting trip to Indian Territory in the interests of the Bangs collection. After spending a short time in Missouri he went to Stilwell, in the Cherokee Nation, at the northwest part of the Boston Mountains. The country was suffering from an unprecedented drought and all mammals were extremely hard to find. Mr. Surber was also handicapped by the unfriendliness of the Indians, who absolutely refused to help him in any way. He had collected but a few days when he was taken ill with an 'extremely malignant form of malaria, which compelled him to abandon the work.

The Boston Mountains about Stilwell rise to a height of 2,500 feet (estimated), and are closed in by ranges of low lying hills, some 250 or 300 feet higher than the intervening narrow valleys of rich land. Beyond the hills west of Stilwell stretches a barren prairie that is said to have been formerly forest-covered. On the sides of the mountains are found black walnut, white oak, red oak, black jack, etc., but no pines. The mountains all top off in cliffs from five to fifty feet high, composed of sandstone or bastard limestone, in which there are many caves.

The material collected at Stilwell, while small in number of specimens, is of great interest. Besides the new forms here described. Mr. Surber got only three species of mammals—the raccoon, *Procyon lotor*; the southern gray squirrel, *Sciurus curolinensis*, and the plains wood rat, *Neotoma baileyi*.

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## 136 Bangs—New Mammals from Indian Territory.

My thanks are due to General Nelson A. Miles, who with great kindness secured for me the necessary permit allowing Mr. Surber to collect in Indian Territory. I am also indebted to Dr. J. A. Allen for presenting me with specimens of *Lepus sylvaticus bach*mani, *Peromyscus attwateri*, and *Scalops texanus* for comparison with the Indian Territory forms.

### Lepus sylvaticus alacer subsp. nov.

Type from Stilwell, Indian Ter., No. 5480,  $\varphi$  young adult, collection of E. A. and O. Bangs. Collected by Thaddeus Surber August 14, 1896. Original No. 65.

Two specimens from Stilwell, Indian Ter.; 2 from Stotesbury, Vernon Co., Mo.

General characters.—About the size of *Lepus sylvaticus bachmani*, but differing from that form in being much darker and richer in color and in having much smaller audital bullæ.

*Color.*—Type in summer pelage: upper parts rich reddish brown (about hazel), many of the hairs with black tips; nuchal patch and upper surface of legs and arms cinnamon rufous; sides and rump paler, shading towards wood brown; band on under side of neck wood brown; rest of under parts, including chin and throat, white. A specimen from Stotesbury, Mo., in winter pelage (No. 1677, February 27, 1894): upper parts cinnamon rufous on back, wood brown on sides, very thickly mixed with black-tipped hairs, giving a dark and rich effect; ears wood brown broadly edged with black; no black mark between ears.

Cranial characters.—Skull small, about the size of that of L. sylvaticus bachmani, differing from other members of the sylvaticus series in having extremely small audital bullæ. Size of type skull: basilar length, 536; occipitonasal length, 67.2; zygomatic breadth, 34; greatest length of single half of mandible, 51.6.

Size.—Type: total length, 370; tail vertebræ, 50; hind foot, 95; ear, 73. Average measurements of two adult specimens from Stotesbury, Vernon Co., Mo.: total length, 398; tail vertebræ, 30.5; hind foot, 79.35; ear, 82.6.

General remarks.—When I was at work on the cotton-tails of eastern North America in 1894 I had the two specimens referred to above, collected at Stotesbury, Mo., in the winter of 1894, by Mr. Surber, and on account of their small size, peculiar coloration, and small audital bulke was unable to refer them to any known subspecies. They clearly belong to the same form as the Indian Territory specimens, which appears to be unnamed. The two examples taken at Stilwell were both shot in the low, rich valleys, and Mr. Surber did not find the animal on the mountains. This form probably has an extensive range throughout the region where the wooded eastern country meets the great plains.

Lepus sylvaticus alacer probably merges into L. sylvaticus bachmani of Texas, but its smaller audital bullæ and dark color at once distinguish it from the gray bachmani.

### Peromyscus bellus sp. nov.

Type from Stilwell, I. T. No. 5483,  $\bigcirc$  adult, collection of E. A. and O. Bangs. Collected by Thaddeus Surber August 15, 1896. Original No. 67. Two specimens from Stilwell, I. T.

General characters.—Compared with *P. attwateri* (apparently its nearest geographical ally) *P. bellus* differs in being much darker and browner; in having a larger hind foot, a pectoral band of fawn color, and a fawn-colored nose patch (white in *attwateri*). It belongs to the group of so-called brush mice.

*Color.*—Upper parts broccoli-brown much mixed with black along back, becoming fawn color on lower sides; patch at root of whiskers fawn color; ears large, nearly naked, dusky; tail large and long, bicolored, black above, white below, well haired and with a decided pencil; feet and hands white; under parts white, the hairs plumbeous at base; a band of fawn color extending across under side of neck in front of arms.

Cranial characters.—Skull of the same general appearance as that of P. attwateri, but larger and with deeper, broader brain case. Size of the type skull: basilar length, 24.2; occipitonasal length, 28; zygomatic breadth, 14; greatest length of single half of mandible, 15.

Size.—Type: total length, 190; tail vertebræ, 90; hind foot, 24; ear, 17. Average measurements of two adult specimens from Stilwell, I. T.: total length, 192.5; tail vertebræ, 93.5; hind foot, 24; ear, 16.

General remarks.—The two examples of this brush mouse were taken on one of the rocky hillsides at Stilwell. *P. bellus* differs from *P. attwateri* very materially, but *P. attwateri* seems very close, perhaps too close, to *P. rowleyi*, as I must confess I can hardly distinguish skins of the two species.

### Tamias striatus venustus subsp. nov.

Type from Stilwell, I. T. No. 5478,  $\mathcal{J}$  old adult, collection of E. A. and O. Bangs. Collected by Thaddeus Surber August 13, 1896. Original No. 63. Two specimens from Stilwell, I. T.; 1 from Noel, Mo.

General characters.—Size and proportions about as in *T. striatus griseus*; colors very bright, especially on rump; all the black dorsal and lateral bands much shortened; hair, especially on rump, hispid, but this character may be seasonal.

*Color.*—Rump and upper surface of legs deep, rich, lustrous chestnut rufous, this color extending up back and sides, narrowly bordering the black bands; sides yellowish gray; back (between the black bands) and upper neck and shoulders dark gray; ears and face much suffused with chestnut rufous; facial markings not conspicuous; hairs of upper surface of tail yellowish at base, then black and slightly tipped with white; under parts yellowish white, somewhat washed on belly and under side of legs with cinnamon rufous; under side of tail cinnamon rufous.

Cranial characters.—The skull is large, about as in *T. striatus griseus*. Size of type skull: basilar length, 38.6; occipitonasal length, 43.6; zygomatic breadth, 24.4; greatest length of single half of mandible, 26.2. Bangs-New Mammals from Indian Territory.

Size.—The type: total length, 260; tail vertebræ, 100; hind foot, 37. Size of No. 5605, ♂ adult from Noel, Mo.: total length, 255; tail vertebræ, 105; hind foot, 36.5.

General remarks.—The two specimens of this fine chipmunk that Mr. Surber got at Stilwell were shot at the edge of an old field well up on a hillside. The specimen from Noel, Mo., was taken in a similar place.

Tamias striatus venustus is by far the handsomest of the striatus series and is easily distinguished from any of the other subspecies. Its large size and big hind foot place it nearest to griseus, but its bright, rich coloration will at once separate it from that form. With the pale yellow *lysteri* of the northeast it needs no comparison, and from the small, dull, darkcolored true striatus of the southeast it can always be told by its larger size, bigger hind foot, longer tail, and much brighter coloration.

#### Scalops texanus æreus subsp. nov.

Type from Stilwell, I. T. No. 5475, Q old adult, collection of E. A. and O. Bangs. Collected by Thaddeus Surber, August 13, 1896. One specimen from Stilwell, I. T.

*General characters.*—Size larger than typical *S. texanus*; hind foot larger; colors darker, without orange markings about nose and chest; skull slightly different.

*Color.*—Rich coppery chestnut all over, without golden or orange suffusions; slightly duller below than above, and grayer on chin and throat.

*Cranial characters.*—The skull of *S. texanus areus* as compared with that of true *texanus* is larger and of a slightly different shape. The skull of *texanus* has a short rostrum and is much bulged between the orbits. The skull of *areus* has a longer rostrum and does not present the bulged appearance between the orbits. Size of type skull: basilar length, 28.4; occipitonasal length, 33.4; zygomatic breadth, 15.2; greatest length of single half of mandible, 21.8.

Size.—The type: total length, 154; tail vertebræ, 24; hind foot, 19.

General remarks.—Mr. Surber caught the type specimen of Scalops texanus æreus while it was engaged in tunneling on a black-jack ridge at Stilwell.

Dr. J. A. Allen\* gives the following measurements for *Scalops texanus* from Rockport, Texas: Average of twelve adult males, total length, 141; tail vertebræ, 25; hind foot, 17.8; and of eight adult females, total length, 137; tail vertebræ, 23; hind foot, 16.5. The largest male measured : total length, 147; tail vertebræ, 27; hind foot, 19; and the largest female: total length, 146; tail vertebræ, 25.5; hind foot, 18. Although Dr. Allen gives no cranial characters for the species, the two skulls of *texanus* that I have examined can be easily told from either the skulls of typical *Scalops aquaticus* or *S. aquaticus argentatus*, apart from the smaller size, by the much shorter rostrum and bulging interorbital region. The skull of *æreus* is much more like that of *aquaticus*.

Mr. Surber took a fine series of *Scalops aquaticus argentatus* at Stotesbury, Vernon County, Mo., which brings the range of that subspecies very near the range of *S. texanus æreus*. *Æreus*, however, does not approach *argentatus* in any way, its affinities lying wholly with *texanus*.

\* Bull. Am. Mus. Nat. Hist., vol. vi, 1894, p. 186.

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